VMware Workstation 6.5 Beta Release Notes

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Notes on VMware Workstation 6.5, Build 84113

Build 84113 is a beta build of VMware Workstation.

The release notes contain the following:

New Support for 32-Bit and 64-Bit Operating Systems

New Features in This Release

Known Issues

New Support for 32-Bit and 64-Bit Operating Systems

Plans for Workstation 6.5 include adding support for additional host and guest operating systems such as CentOS, Oracle Enterprise Linux, Asianux, and newer editions of operating systems already supported. Windows Server 2008 is experimentally supported as a guest.

You are welcome to try Workstation 6.5 on these operating systems and send feedback. Precompiled kernel modules are not available for the newly added Linux operating systems. Therefore, when you start Workstation for the first time, a dialog box might prompt you to compile the kernel modules. If you experience issues with this new module updater feature, run the following command: vmware-config.pl --compile.

New Features in This Release

In addition to the new features listed here, be sure to read about new ACE-specific features in the VMware ACE 2.5 beta release notes.

Unity mode — Integrate your favorite guest applications with your host. Open the application window, enter unity mode, and then minimize the Workstation window. The guest application windows look just like host application windows. You can access the virtual machine's Start menu (for Windows virtual machines) or Applications menu (for Linux virtual machines) by placing the mouse pointer over the host's Start or Applications menu.

Accelerated 3-D graphics on Windows XP guests — Workstation 6.5 virtual machine now support applications that use DirectX 9 accelerated graphics with shaders up through Shader Model 2.0 on Windows XP guests. Hosts can be running Windows 2000, Windows XP, Windows Vista, or Linux.

Enhanced VMware ACE authoring — Use ACE (Assured Computing Environment) features to package and deploy Pocket ACE and desktop virtual machines with encryption, restricted network access, and device control. VMware ACE authoring features are now fully integrated with Workstation, and no special ACE Edition is required.

More powerful record/replay of VM execution behavior — Easily enable this powerful debugging tool, which records full system behavior, including all CPU and device activitiy. You can now insert markers while creating or playing back a recording and quickly navigate to these markers during replay. You can also browse a recording to replay from any spot.

Link state propagation for mobile users — If you use virtual machines on a laptop or other mobile device, enable the new link state propagation feature for bridged networks. As you move from one wired or wireless network to another, the IP address is automatically renewed.

Support for smart cards in virtual machines — You can plug a smart card reader into a Windows host and insert your smart card to authenticate yourself on your host or on a guest.
Smart cards can now be shared between the host and guests or between guests. To enable sharing, add the following line to the global configuration file:
usb.ccid.useSharedMode = "TRUE"

On most Windows hosts, it is located in
C:\Documents and Settings\All Users\Application Data\VMware\VMware Workstation\config.ini
On Windows Vista hosts, it is located in
C:\Users\All Users\Application Data\VMware\VMware Workstation\config.ini

Integration with VMware Converter 3.0.3 — This release includes the Conversion wizard component from VMware Converter 3.0.3. You can now use File > Import to create virtual machines from Acronis True Image files in addition to the Microsoft Virtual PC, Symantec Backup Exec System Recovery, and StorageCraft ShadowProtect file types previously supported. You can also convert Open Virtual Machine Format (OVF) appliances. For Microsoft Virtual PC and Microsoft Virtual Server virtual machines, you now have the option of sharing the source virtual hard disk (.vhd) files.

Easy Install option for Windows guest operating systems — When you create a virtual machine, you now have the option of entering a few pieces of information so that installation of the guest operating system and VMware Tools is performed in an unattended fashion.

Virtual Network Editor for Linux hosts — On Linux hosts, the new Virtual Network Editor now provides a graphical user interface

for creating and configuring virtual networks.

New virtual hardware version — This new hardware version lets you use the following new features if the guest operating system supports them: Add or remove some virtual devices while the virtual machine is powered on ("hot-plug"). Use LSI Logic SAS (serial attached SCSI) adapters in the virtual machine. 3-D graphics capabilities are enabled by default. Hot-add virtual CPUs and memory to a Windows Server 2008 guest.

New features for VMware Player — VMware Player now includes the following features, which were previously available only in Workstation:

While in full screen mode, you can now switch from one powered-on virtual machine to another.

Unity mode is available, so that you can open your favorite guest applications in windows on your host desktop.

Both Windows and Linux hosts now support suspending the virtual machine when exiting.

Updated VIX 1.5 API — The VIX API (formerly known as the Programming API) allows you to write scripts and programs to automate virtual machine operations. The API is available in the C language. There are additional language bindings for Perl and COM. See the VIX API 1.5 release notes and the VIX API Reference Guide.

(Experimental) VAssert API for inserting replay-only code to debug applications — Use virtual assertions as you would regular assertions in the applications you develop. The benefit of VAsserts is that they appear only when you replay a recording using the application and so are overhead-free. Currently available for Windows guests. See the VAssert Programming Guide.

VProbes tool for investigating guest behavior — You can write VProbes scripts that inspect and record activities in the guest, VMM, VMX, and virtual device state, without modifying that state. For example, VProbes can track which applications are running or indicate which processes are causing page faults. See the VProbes Reference Guide.

Known Issues

Following are known issues in addition to the known issues for Workstation 6.0.3.

Non-English locales and character sets are temporarily unsupported. This beta release of Workstation temporarily removes support for using non-ASCII characters in the product. For example, you cannot use Asian language characters or characters with various accent marks in user names, directory and file names, or when entering characters in UI fields. This limitation applies to all systems and not only Japanese hosts. In addition, several issues might exist with Workstation and VMware Tools on non-English hosts and guests, including user interface text being garbled and VMware Tools upgrades failing.
Warning: If you want to use an existing virtual machine with this beta release of Workstation and you are not sure whether any virtual machine names, notes, paths to ISO files, user names and so on contain non-ASCII characters, make a backup of the virtual machine.

For this beta release, the online help for VMware Player has not yet been updated to include the latest feature and UI changes.

For this beta release, the experimental VMCI (Virtual Machine Communication Interface) feature is not available.

On Linux hosts, when installing and configuring Workstation, avoid using the --d option with vmware-config.pl for this beta release. The --d option instructs vmware-config.pl to automatically respond to wizard prompts with the default answer.

For this beta release, a small number of smart cards and smart card readers have been tested. Smart cards that have been tested include Gemplus and ActivIdentity. Smart card readers that have been tested include:

Readers with USB interfaces: Gemplus USB-SW, HP USB Smartcard Keyboard KUS0133, Advance Card System ACR30U, and ActivIdentity USB Reader

Readers with serial interfaces: Gemplus American Express GCR415

Readers with PCMCIA interfaces: Omnikey CardMan 4040

Smart card administrative functions, such as PIN initialization (of a blank card) and the saving of security certificates, are not currently supported in a virtual machine. Perform these functions with a properly configured host for this beta release.

For Windows Server 2003 and 2008 virtual machines, the View > Unity command is disabled and the View > Autofit Guest command does not cause the display resolution on the guest to change.

On Windows hosts, if you enter unity mode and then maximize a guest application window, the taskbar on the host is hidden.

Hot-adding PCI devices such as a sound adapter or network adapter might fail if the 3D graphics feature is enabled.
Workaround: Disable the 3D graphics feature. Choose VM > Settings > Hardware > Display and clear the check box called Accelerate 3D graphics.

On some Linux hosts, you cannot enter unity mode until you change the configuration for accelerated 3D graphics. If you receive an error message about the XShm extension when attempting to enter unity mode, increase the value of /proc/sys/kernel/shmmax before powering on the virtual machine. As root, open the /etc/sysctl.conf file with a text editor and add the line: "kernel.shmmax = 67108864". As root, reload the settings by typing: sysctl -p and then power the virtual machine off and on again. If you still have problems, use a larger value.

The default 3D settings for some Nvidia drivers on AMD Dual-Opteron systems are incompatible with the accelerated 3D graphics feature in Workstation. If a virtual machine fails after you enable this feature, use the following procedure.
Workaround: Disable threaded optimizations in the driver:

Right-click on the host desktop.

Choose Nvidia Control Panel.

Select Manage 3D Settings

Select Manage 3D Settings.

In global settings, change the drop down for Threaded Optimizations to Off.

Click Apply.

If you use the easy install feature to install a Windows Vista guest operating system, a virtual floppy image with some personal information from the installation remains after installation is complete. To remove this personal information, Choose VM > Settings > Hardware > Floppy and set the physical floppy to Auto Detect. Next, delete the floppy image from your host file system. The image is located in the directory for the virtual machine.

If the record/replay feature is unstable on your Pentium 4 system, disable hyperthreading and logical processors in the BIOS. When these features are enabled in the BIOS, other applications using performance counters, such as the performance profiling tool, might interfere with the virtual machine running in the record/replay mode.

When making a recording while the background snapshots feature is enabled, you must dismiss the hint that appears after the first auto-marker is added. Recording cannot continue until you dismiss the hint.
Workaround: If possible, avoid using background snapshots in conjunction with record/replay. Otherwise select the Never Show This Hint Again option the first time the hint appears.

During replay, if you select the Go to Marker option, the Play button might remain inaccessible after the operation completes.
Workaround: Click on either the Speed up, Slow down, or the other buttons in the replay dialog box to re-enable the Play button.

Occasionally on Linux hosts, when you use the record/replay feature to make a recording and insert automatic markers, the timer in the Recording dialog box stops. If you attempt to stop the recording, the Save dialog box is unresponsive.
Workaround: Disable the automatic markers by choosing VM > Settings > Options > Snapshot/Replay and select the Max Disk Size radio button.

During replay if you select the Delete Up to This Point option, the replay dialog box might become inaccessible. Although a notification indicates that the virtual machine is live, replay of the recording continues until the end.
Workaround: If you do not want to wait until replay of the recording ends, manually choose to go live or shut down the guest operating system.

After auto-upgrading VMware Tools on some Windows host and guest combinations, the status bar in Workstation might incorrectly report that the upgrade was unsuccessful. If after powering the virtual machine off and on again, the message remains, use the VM > Install VMware Tools command to reinstall the latest version.

Auto-upgrading VMware Tools on Ubuntu Linux guests does not work if the virtual machine uses a version of VMware Tools included in Workstation 5.5.x. Auto-upgrades from 6.0.x are successful.

For Windows 95, 98, and NT virtual machines that have VMware Tools installed, the status bar says that a VMware Tools update is available when in fact it is not.

If you use the same VNC port number for connecting to multiple virtual machines on one host, you might see an "Incorrect function" error on Windows hosts or an "Operation not permitted" tooltip on Linux hosts. As the documentation states, you must specify a unique port number for each virtual machine. Use a free port number in the range from 5901 to 6000.

On Redhat 9 guest systems with VMware Tools installed, network connectivity may be lost after reboot.
Workaround: To restore network connectivity, run dhclient.

On some Red Hat Enterprise Linux 5.1 hosts, the Workstation UI might fail to start due to problems loading shared libraries.
Workaround: As root, choose System > Administration > Security Level and Firewall. On the SELinux tab, select Disabled, and click OK.

You cannot use the File > Import command to convert a Windows NT physical machine to a virtual machine.
Workaround: Use the standalone VMware Converter to convert a remote Windows NT physical machine.

On Windows 2000 hosts, Workstation sometimes exits unexpectedly when you try to map a virtual disk to a drive on the host.

For Linux virtual machines, if you receive an error when changing the amount of memory for the virtual machine, power off the virtual machine and then change the setting.

Memory adjustment in VMware Player is not working properly in this beta release.

On some Linux hosts, particularly those using Compiz, exiting from full-screen mode might cause the UI to freeze.

Debugging inside a Windows 2000 guest using Eclipse and Visual Studio Integrated Virtual Debuggers might fail with Authentication error.

For this beta release, you might not be able to use the Eclipse Integrated Virtual Debugger to debug a Linux virtual machine from a Windows host. For other host and guest combinations, power on the virtual machine before attempting to use the Eclipse debugger. Otherwise, you might receive the error message "Unable to establish network connection."

If you use the Eclipse Integrated Virtual Debugger to debug a Windows guest running any version of a JRE, you must turn off the firewall. If you do not turn off the firewall, you receive the error message "Unable to establish network connection."

You cannot use the Eclipse Integrated Virtual Debugger to debug a guest running Red Hat Enterprise Linux 3. Attempting to do so produces an "authentication failure" error.

When upgrading using RPM on a Linux host, the upgrade to a beta version of Workstation might fail. This issue is due to the version number, which includes "e.x.p." (meaning experimental). RPM sees a version number with "e.x.p." as being an earlier version than the currently installed released version.
Workaround: Install the beta version of Workstation by using the "rpm -Uhv --oldpackage" option.